

## ABSTRACT

A dehydration step is conducted by heating a mixture containing an organic amide solvent and a sulfur source including an alkali metal hydrosulfide, and a part of an overall charged amount of an alkali metal hydroxide as needed. The mixture remaining within the system after the dehydration step is mixed with a dihalo-aromatic compound, the resultant mixture is heated to conduct a polymerization reaction, and the alkali metal hydroxide is added to the mixture for polymerization reaction continuously or in portions to control the pH of the mixture for polymerization reaction within a range of from 7 to 12.5 from the beginning to the end of the polymerization reaction. The poly(arylene sulfide) according to the present invention has a nitrogen content of at most 800 ppm.